

Louisville Metro Air Pollution Control District Notice of Proposed Rulemaking

**Regulations 1.02, 1.06, 5.00, 5.01, 5.11,
5.12, 5.20, 5.21, 5.22, and 5.30**

July 17, 2009

Purpose of the Notice of Proposed Rulemaking:

The Louisville Metro Air Pollution Control District is issuing this Notice of Proposed Rulemaking seeking comments on a set of draft proposals to amend the Strategic Toxic Air Reduction (STAR) program and related regulations. The District will consider comments received by 5:00 p.m. EDT on July 31, 2009. Comments may be submitted by e-mail to airregs@louisvilleky.gov, or by mail or fax addressed to:

Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204
Fax: (502) 574-7239
Attn: Cynthia Lee

Scope of the Draft Proposed Amendments:

There are no proposed changes to the STAR goals or standards. In general, the draft proposed amendments are administrative changes designed to clarify the text, consolidate STAR definitions into one regulation, and remove redundant or outdated provisions. A brief description of the proposed actions can be found at the end of this Notice. More detailed information can be found in the Preliminary Regulatory Impact Statements.

Background of the Proposed Action:

The Louisville Metro Air Pollution Control Board passed the STAR regulations in 2005 in response to concerns raised by, among other things, the West Louisville Air Toxics Study (WLATS), which collected and analyzed ambient air data in the Rubbertown area of west

Louisville from April 2000 to April 2001 (Study 1).¹ A risk assessment performed by Sciences International based on the WLATS data identified 18 chemicals monitored at levels that exceeded target health goals.²

Since the original WLATS risk assessment in October 2003, the following events have occurred:

- **2004:** Four stationary sources located in the Rubbertown industrial area undertake to reduce emissions of certain air toxics from their facilities.
 - Zeon reduces annual emissions of 1,3-butadiene by more than 2,600 pounds, acrylonitrile by 115 pounds, and styrene by 15,660 pounds;
 - DuPont Elastomers reduces chloroprene emissions by 15% from 2002 levels (in 2008, the facility ceased production in Louisville altogether);
 - American Synthetic Rubber Company agrees to study the feasibility of alternate control devices, ultimately agreeing to install a thermal oxidizer to reduce VOC emissions, including 1,3-butadiene;
 - Rohm and Haas implements an enhanced leak detection and repair program.
- **2005:**
 - June 21, 2005: The Air Pollution Control Board approves the STAR Program, a multi-year effort requiring companies that emit toxic air contaminants (TACs) to significantly reduce those emissions to better protect citizens' health and enhance quality of life. STAR focuses on reducing ambient levels of TACs that exceed a goal of 1 in 1 million risk from carcinogens or a Hazard Quotient of 1 from non-carcinogens.
 - December 2005: American Synthetic Rubber Company begins operation of its thermal oxidizer, ultimately reducing emissions of 1,3-butadiene by more than 75%.
- **2006:** Implementation of the STAR Program begins for the Group 1/Title V stationary sources. In December, these sources submit environmental acceptability (EA) demonstrations for Category 1 TACs.
- **2007:**
 - Title V and Group 2 (FEDDOOP/25 ton) stationary sources begin submitting emissions inventory statements for TACs.
 - Title V sources submit compliance plans and schedules for Category 1 TACs.
 - The *Regulation 5.30 Report and Plan of Action* is completed and presented to the Board.
- **2008:** Implementation of the STAR Program continues for Title V and FEDDOOP/25 ton sources and sources adding or modifying processes or process equipment.
 - DuPont Elastomers, the only local source of chloroprene, ceases operation.
 - September: FEDDOOP/25 ton sources submit EA demonstrations for Category 1 TACs.
 - December: District sends draft STAR permits for public comment to 21 Title V sources.

¹ Study 2 collected and analyzed data from November 2001 to December 2005, and a second risk assessment report was finalized on November 16, 2006. See <http://www.louisvilleky.gov/APCD/STAR/WLATS.htm>.

² The goals, now embodied in Regulation 5.21, are 1 in 1 million for carcinogens (1×10^{-6}) and a hazard quotient of 1 for noncarcinogens.

- **2009:** In March, Title V sources submit compliance plans and schedules for Category 2 TACs.

As a result of these and other developments, Louisville's air is cleaner.³ The largest stationary sources (many of which are located in the Rubbertown area) have reduced their emissions of Category 1 TACs, the chemicals of greatest local concern. Implementation of STAR for Category 2 TACs emitted by these sources is scheduled for completion by March 31, 2010. EA demonstrations from Group 2 sources for Category 1 TACs have been submitted and are under review. The District reviews new construction or modification applications for compliance with EA goals for all four categories of TACs. In addition, the District continues to implement programs and activities recommended in the July 2007 *Regulation 5.30 Report and Plan of Action* to address unacceptable risk from ambient concentrations of TACs from minor stationary sources, area sources, mobile sources, and non-road mobile sources.

In short, STAR implementation has been successful to date. The amendments summarized below will add clarity to the regulations and generally bring them up to date. This willingness to make adjustments and address issues as they arise is a necessary component of any successful regulatory program, particularly one as dynamic as STAR.

Summary of significant changes:

Regulation 1.02 Definitions

- Definitions of terms that are used only in Chapter 5 will be moved to a new regulation, 5.00 (see below).

Regulation 1.06 Stationary Source Self-Monitoring, Emissions Inventory Development, and Reporting

- Stage II gasoline dispensing stations will submit statements of monthly throughput every third year instead of annually. (These facilities are required to maintain these reports and provide them to the District on request.) Specific language for cold cleaners will be deleted as redundant.
- Specific language on emissions statements for auto body shops and dry cleaners will be deleted as redundant.
- Most of Section 5 governing enhanced emissions statements for TACs will be deleted, except the requirement to report emissions of TACs not reported under Section 4. (Nearly all of the TACs are already reported under Section 4, which implements federal requirements.) In addition, the deadlines for submitting process-specific information under Section 5 have passed and the District has received that information. Process-specific information, including related stack- and fugitive-specific parameters, will be continue to be submitted when a facility is required to perform an environmental acceptability (EA) demonstration, for instance any time a

³ See "School air once was risky (Louisville's poor ranking, based on 2005 statistics, now said to be much improved)", *The Courier-Journal*, December 17, 2008.

STAR facility is modified (as defined in District regulations). The District has the authority under KRS 77.215 to require this or other information at any time.

Regulation 5.00 Definitions

- STAR-related definitions currently in Regulations 1.02, 5.01, 5.20, 5.21, and 5.30 will be moved to this new regulation. Definitions used in other Part 5 regulations will be added at a later date if needed.

Regulation 5.01 General Provisions

- STAR program definitions will be moved to Regulation 5.00.

Regulation 5.11 Standards of Performance for Existing Processes and Process Equipment Emitting Toxic Air Pollutants

- This regulation governing toxic air pollutants (TAPs) will be repealed. A source with an operating permit based on Regulation 5.11 will be evaluated when the permit is renewed or modified to see if the STAR program should apply.

Regulation 5.12 Standards of Performance for New or Modified Processes and Process Equipment Emitting Toxic Air Pollutants

- This regulation governing TAPs will be repealed. A source with an operating permit based on Regulation 5.12 will be evaluated when the permit is renewed or modified to see if the STAR program should apply.

Regulation 5.20 Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant

- The definitions will be moved to Regulation 5.00.
- A process will be established for determining that a TAC is not carcinogenic, using the same process by which the TAC was identified as a carcinogen.

Regulation 5.21 Environmental Acceptability for Toxic Air Contaminants

- Definitions will be moved to Regulation 5.00.
- The deadline for the Group 2 sources to submit EA demonstrations and compliance plans for Category 2 TACs will be extended.
- Postcards will not be sent to persons identified as first- and second-tier property owners.

Regulation 5.22 Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant

- An intermittent rate of less than 10% may be used when determining the maximum ambient concentration of a TAC, if the source either accepts enforceable limits or demonstrates that emissions are so low-level and of such short duration that there are no acute health effects.
- Language regarding use of AERMOD and ISC3 models will be updated.